Proceedings of ICRC 2001: 3575 © Copernicus Gesellschaft 2001

ICRC 2001

Recurrent cosmic ray decreases during the second ULYSSES orbit. COSPIN/KET results

G. Sarri[1], **C. Paizis**[1,2], **B. Falconi**[2], **B. Heber**[3], **P. Ferrando**[4], **A. Raviart**[4], **R. Müller-Mellin**[1], **and H. Kunow**[5]

[1]Dipartimento di Fisica, Universit di Milano, Via Caleria 16, 20133 Milano, Italy
[2]Istituto di Fisica Cosmica del CNR, Via Bassini 15, 20133 Milano, Italy
[3]Fb. Physik, Universität Osnabrück, Barbarastr. 7, 49069 Osnabrück, Germany
[4]DAPNIA/Service d'Astrophysique, C. E. Saclay, 91191, Gif-sur-Yvette, France
[5]Institut für Experimentelle und Angewandte Physik, Universität Kiel, 24118 Kiel, Germany

Abstract. The recurrent cosmic ray decreases, their evolution with heliolatitude, the rigidity dependence of their amplitude and their relation with the Corotating Interaction Regions have been extensively studied during the first Ulysses orbit. These studies are mainly concentrated in south heliographic latitudes under conditions close to Solar minimum.

In this work we extend the observations in the second Ulysses orbit to include both North as well as South latitudes in conditions approaching Solar maximum. In particular we study the way in which the amplitude of the recurrent cosmic ray decreases varies with heliolatitude in both hemispheres and look for potential asymmetries; furthermore we examine the rigidity dependence of the amplitude of the decreases and compare our present results with those obtained during the first Ulysses orbit. We also investigate the possibility for a potential correlation between the amplitude of the decreases and their duration.